#### **DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 99.28

#### WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-019477 Address: 333 Burma Road **Date Inspected:** 23-Jan-2011

City: Oakland, CA 94607

**OSM Arrival Time:** 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC) **Location:** Shanghai, China

**CWI Name: CWI Present:** Yes No Li Yang and Zhu Zhong Hai **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:** 

34-0006 **Bridge No: Component: OBG** Trial Assembly

## **Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector Mr. S. Manjunath Math was present during the time noted above for observations relative to the work being performed.

This QA Inspector randomly observed the following work in progress:

Orthotropic Box Girder (OBG) at Trial Assembly Areas

Segment 12BW to Segment 12CW (Bottom Panel, Transverse Splice weld)

This QA Inspector observed the in-process welding by Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as OBW12B-001. The welder identification was 040611, observed welding in the 4G (Overhead) position using approved Welding Procedure Specification WPS-B-P-2214-B-U2-FCM-1. The piece mark was identified as the Bottom Panel, at transverse splice at work point W4.

Please reference the pictures attached for more comprehensive details.

Segment 12BW to Segment 12CW (Side Panel, Transverse Splice weld)

This QA Inspector observed the in-process welding by Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as OBW12D-002. The welder

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identification was 040611, observed welding in the 4G (Overhead) position using approved Welding Procedure Specification WPS-B-P-2214-B-U2-FCM-1. The piece mark was identified as the Bottom Panel, at transverse splice at work point W4.

Segment 12BW to Segment 12CW (Bottom Panel, Transverse Splice weld)

This QA Inspector observed the in-process welding by Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as OBW12B-001. The welder identification was 057333, observed welding in the 4G (Overhead) position using approved Welding Procedure Specification WPS-B-P-2214-B-U2-FCM-1. The piece mark was identified as the Bottom Panel, at transverse splice at work point W3.

Segment 12BW to Segment 12CW (Side Panel, Transverse Splice weld)

This QA Inspector observed the in-process welding by Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as OBW12D-001. The welder identification was 057333, observed welding in the 4G (Overhead) position using approved Welding Procedure Specification WPS-B-P-2214-B-U2-FCM-1. The piece mark was identified as the Bottom Panel, at transverse splice at work point W3.

Segment 12BW to Segment 12CW (T- Rib Splice weld)

This QA Inspector observed the in-process welding by Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as SP3051-001-042. The welder identification was 046709 observed welding in the 4G (Overhead) position using approved Welding Procedure Specification WPS-B-P-2214-B-U2-FCM-1. The piece mark was identified as the Side Panel Corner Assembly, T-Rib splice, Counter Weight side.

Segment 12BW to Segment 12CW (T- Rib Splice weld)

This QA Inspector observed the in-process welding by Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as SP3041-001-040. The welder identification was 046709 observed welding in the 3G (Vertical) position using approved Welding Procedure Specification WPS-B-P-2213-B-U2-FCM-1. The piece mark was identified as the Side Panel Corner Assembly, T-Rib splice, Counter Weight side.

Segment 12BW (I- Rib hold back)

This QA Inspector observed the in-process welding by Flux Cored Arc Welding (FCAW) process on a Fillet weld. The Weld joint was designated as SP3053-001-021/022. The welder identification was 053486 observed welding in the 2F (Horizontal) position using approved Welding Procedure Specification WPS-B-T-2132-ESAB. The piece mark was identified as the Side Panel Corner Assembly, I-Rib splice, Counter Weight side.

Please reference the pictures attached for more comprehensive details.

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Segment 12CW (I- Rib hold back)

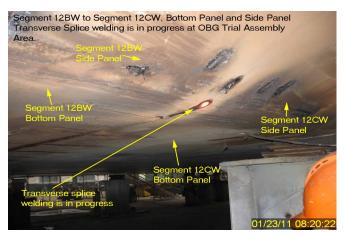
This QA Inspector observed the in-process welding by Flux Cored Arc Welding (FCAW) process on a Fillet weld. The Weld joint was designated as SP3057-001-022/023. The welder identification was 053486 observed welding in the 2F (Horizontal) position using approved Welding Procedure Specification WPS-B-T-2132-ESAB. The piece mark was identified as the Side Panel Corner Assembly, I-Rib splice, Counter Weight side.

Please reference the pictures attached for more comprehensive details.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.









## **Summary of Conversations:**

No relevant conversations were reported on this date.

#### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 150000422372, who represents the Office of Structural Materials for your project.

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**Inspected By:** Math, Manjunath Quality Assurance Inspector **Reviewed By:** Dsouza, Christopher QA Reviewer